The ENVIROMUX® Mini Server Environment Monitoring System monitors critical environmental conditions (such as temperature, humidity, and water leakage) that could destroy network components in your server room. When a sensor goes out of range of a configurable threshold, the system will notify you via email, SNMP traps, web-page alerts, a visual indicator (red LED), and SMS messages (via external GSM or 3G modem).

- Monitor and manage server room environmental conditions over IP.
- Sensors supported:
  - 2 temperature/humidity sensors
  - 1 liquid detection sensor
  - 4 digital inputs sensitive to contact closure
- Alerts are posted in message log, which is accessible through Web user interface.
  - The log can be downloaded as a tab-delimited plain text file.
- Flexible Zero-RU mounting.
- Mounting tabs included.
- Optional DIN mounting available.
- Integrate with various Open Source monitoring packages — Nagios and MRTG.
- Optional industrial mini server environment monitoring system for high temperature environments. This industrial system has the ability to operate and monitor in harsh environments at high temperatures up to 167°F (75°C).
  - Add "-IND" to the end of the part number to specify this option.
- Use in data centers, co-lo sites, web hosting facilities, telecom switching sites, POP sites, server closets, or any unmanned area that needs to be monitored.

### Specifications

#### Temperature/Humidity Inputs

- Two female RJ45 connectors for connecting temperature sensors, humidity sensors and/or combined temperature/humidity sensors.

#### Water Detection Cable Input

- One screw terminal pair for connecting liquid detection sensor.
  - Additional water detection sensors can be connected to the dry contact closures.
- Output voltage: +5VDC.
- Current limited to 10mA
- Maximum resistance to close contact: 300K Ohm

#### Dry Contact Closures

- Four screw terminal pairs for connecting dry contact devices.
  - Potential-free.
  - Output voltage: +5VDC
  - Current limited to 10mA
  - Maximum resistance to close contact: 300K Ohm

#### RS232 Port

- One female RJ45 connector for controlling a GSM modem.
- Supports 3-wire interface (Tx, Rx and GND)
- Used for flash upgrades (includes DB9F-RJ45F adapter).
- GSM modem supported: Teltonika WirelessCom/G10.
- 3G modem supported: NetComm N3GS003

#### Ethernet Port

- One female RJ45 connector with LEDs.
- 10 BaseT Ethernet interface.

#### Protocols

- HTTP, SNMP V1, SMTP, TCP/IP, UDP, DHCP
- Compatible with any SNMP management software.
- Operates and configures via HTTP web page.
  - Supports Microsoft Internet Explorer 6.0 and higher.
- An IP address can be assigned to the ENVIROMUX-MINI automatically by a DHCP server.
- Generates SNMP traps, email alerts, and syslog messages.
- Email alerts can be sent to three addresses.
- Up to four users can access the Web interface simultaneously.

#### Dimensions

- WxDxH (in.): 5.6x2x2

#### Regulatory Approvals

- ENVIROMUX-MINI: CE, UL, cUL, RoHS
- ENVIROMUX-MINI-IND: CE, UL, cUL, RoHS

#### Power

- 110 or 220 VAC at 50 or 60 Hz via AC adapter.
- Power consumption: 5W
- Use the PWR-48V-5V1A DC-DC power converter to install the ENVIROMUX-MINI in a Telecom environment.
Control Methods
- Configuration can be done over the Internet/LAN via Web page.

Front Panel Interface
- LEDs indicate the following:
  - “Fault” (red) lights up if a sensor goes out of range of a configurable threshold.
  - “Power” (green) lights up when the device is powered/all clear.

Web Interface
- Supports Internet Explorer 6.0 and higher, Firefox 1.5 and higher, Netscape 9, Safari 1.3 and higher for MAC, and Safari 3.0 and higher for PC.
- Configure sensor’s thresholds, alarm methods, formats of alerts, and system data log.
- View/edit sensors’ current values, thresholds and alert statuses.
  - All sensors connected to the ENVIROMUX-MINI can be viewed on one summary page.
  - User configurable settings allow sensors to return to normal status when alert condition clears, without manually acknowledging/dismissing the alert.
- View/edit entries stored in the system data log.
- The log can be downloaded as a tab-delimited plain text file.
- Configure IP information (address, subnet mask, default gateway, DNS, etc.), user administrative settings, and data logging settings.
- Up to four users can access the web page at one time.

WAP Mobile Summary Page
- View summary page on WAP 2.0 compatible devices (smartphones, PDAs, cell phones, etc.)
  - Supports Blackberry Software 4.2 and higher.
  - Supports iPhones using Safari 3.0 and higher.
- Summary page lists all connected sensors’ current values and alert statuses.

DIN Rail Mounting Option

Configuration and Cable Illustration

Environmental Sensors

Temperature Sensor
- For use with ENVIROMUX-MINI.
- Applications from 32°F to 104°F (0°C to 40°C).
- High resistance to external influences on the cable due to digital output signal.
- Accurate to within ±1.35°F (±0.75°C).
- Re-calibration is not necessary after initial set-up.
- Available lengths: 3/7/10/25 feet.
- Includes mounting hardware.
- Regulatory approvals: CE, RoHS

Temperature Sensor, Extended Range
- For use with ENVIROMUX-MINI-IND.
- Applications from 32°F to 167°F (0°C and 75°C).
- High resistance to external influences on the cable due to digital output signal.
- Accurate to within ±2.25°F (±1.25°C).
- Re-calibration is not necessary after initial set-up.
- Available lengths: 3/7/10/25 feet.
- Includes mounting hardware.
- Regulatory approvals: CE, RoHS
**MINI SERVER ENVIRONMENT MONITORING SYSTEM**

SNMP and Web monitoring/management of server room environments

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### Environmental Sensors (continued)

#### Temperature/Humidity Combination Sensor
- For use with ENVIROMUX-MINI.
- Applications from 32°F to 104°F (0°C and 40°C) and 20% to 80% relative humidity.
- High resistance to external influences on the cable due to digital output signal.
- Accurate to within ±1.35°F (±0.75°C) and ±5% relative humidity.
- Re-calibration is not necessary after initial set-up.
- Available lengths: 3/7/10/25 feet.
- Includes mounting hardware.
- Regulatory approvals: CE, RoHS

![ENVIROMUX-TRH-xx](image)

#### Humidity Sensor
- For use with ENVIROMUX-MINI.
- Applications from 20% to 80% relative humidity at temperatures between 0°C and 40°C.
- High resistance to external influences on the cable due to digital output signal.
- Accurate to within ±5% relative humidity.
- Re-calibration is not necessary after initial set-up.
- Available lengths: 3/7/10/25 feet.
- Includes mounting hardware.
- Regulatory approvals: CE, RoHS

![ENVIROMUX-RH-xx](image)

#### Liquid Detection Sensor
- For warning of flooding.
- 100% waterproof electronics.
- Detects any conductive liquid.
- Puddle: 0.6” diameter.
- Detects liquid depth ≥0.1”.
- Available water sensor cable (x) lengths: 1/10/50/100/200/400/600/800/1000 feet.
- Available 2-wire cable (y) lengths: 5/10/20/50/100 feet.
- Regulatory approvals: CE, RoHS

![ENVIROMUX-LDx-y](image)

#### Smoke Detection Sensor
- For warning of smoke.
- Built-in 135° F (57° C) thermal heat sensor.
- Includes mounting hardware.
- Photoelectric smoke detector.
- Screw terminal.
- Includes 9V/1A power supply.
- Regulatory approvals: UL

![ENVIROMUX-SDS-PA](image)

#### Carbon Monoxide Detector
- Continuous air monitoring.
- Pre-set alarm points alert at:
  - 70 ppm after 60 to 240 minutes
  - 150 ppm after 10 to 50 minutes
  - 400 ppm after 4 to 15 minutes
- Flush or surface mount.
- Test functionality of electrochemical CO sensing cell.
- Screw terminal.
- LED indicators for operation status and system test.
- Includes 9V/1A power supply.
- For use with ENVIROMUX-MINI only.
- Regulatory approvals: UL

![ENVIROMUX-CMD-P](image)

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**Environmental Sensors (continued)**

- **Sensor Cables**
  - 2-wire sensor cable.
  - Use to connect dry contact sensors to the ENVIROMUX-MINI.
  - Available lengths (ft): 3/6/10/25/50/100
  - Regulatory approvals: RoHS, UL

![ENVIROMUX-2W-xx](image)
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Motion/Intrusion Sensors

Door Contact Sensor
- Monitors access with a magnetic bridge sensor, which responds to any magnetic material (no special inserts necessary).
- Can also be used for monitoring side wall and covers.
- Includes mounting hardware.
- For normally closed circuit connection.
- 2-wire interface; screw terminal
- Wide actuating gap, about 1”.
- Dimensions WxDxH (in): 0.5x0.5x2 (Switch), 0.5x0.5x2 (Magnet).
- Regulatory approvals: RoHS

Ceiling Mount Infrared Motion Detector
- Detects movement across the detection field.
- 360° detection pattern.
- 113° conical detection angle from ceiling.
- 36' diameter protection when mounted 12' high.
- Provides substantial immunity to false alarms caused by environmental disturbances.
- Pulse count or single shot triggering.
- Good RFI protection
- Screw terminal.
- Maximum cable length: 1,000 ft.
- Includes 9V/1A power supply.
- For use with ENVIROMUX-MINI only.
- Regulatory approvals: CE, RoHS

Glass Break Detection Sensor
- Acoustically detects the cracking of glass.
- Adjustable sensitivity.
- Includes mounting hardware.
- Screw terminal.
- Maximum cable length: 1,000 ft.
- Includes 9V/1A power supply.
- For use with ENVIROMUX-MINI only.

Tamper Switch
- Sends activation signal when tamper switch is released.
- Normally closed contact when depressed.
- Dimensions (in): inner diameter: 0.8, outer diameter: 0.9, height: 2.9
- 2-wire interface.

Infrared Motion Detector
- Registers movement in the area covered.
- Condition display via LED.
- Provides immunity from common-mode signals such as the effect of strong hot or cold air currents, variation in ambient temperature, background radiation and acoustic noise.
- 24 dual-element detection zones for long, mid and short range protections.
- Pulse count or single shot triggering.
- Good RFI protection.
- Screw terminal.
- Maximum cable length: 1,000 ft.
- Includes 9V/1A power supply.
- For use with ENVIROMUX-MINI only.
- Regulatory approvals: CE, RoHS

Mini Infrared Motion Detector
- Detects movement across the detection field.
- Provides substantial immunity to false alarms caused by environmental disturbances.
- Pulse count or single shot triggering.
- Good RFI protection.
- Dimensions WxDxH (in): 2.2x1.2x2.9
- Screw terminal.
- Maximum cable length: 1,000 ft.
- Includes 9V/1A power supply.
- For use with ENVIROMUX-MINI only.
- Regulatory approvals: CE, RoHS

Emergency / Panic Button
- Sends activation signal when button is pressed.
- For normally closed or normally open circuit connections.
- 2-wire interface.
- Screw terminal.
- Dimensions WxDxH (in): 0.4x0.9x3
- Regulatory approvals: RoHS
### MINI SERVER ENVIRONMENT MONITORING SYSTEM

**SNMP and Web monitoring/management of server room environments**

#### Power Sensors & Accessories

<table>
<thead>
<tr>
<th><strong>Power Over Ethernet Adapter</strong></th>
<th><strong>AC Voltage Detector</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="327x592" alt="Image" /></td>
<td><img src="405x29" alt="Image" /></td>
</tr>
<tr>
<td>Enables ENVIROMUX-MINI to be powered over Ethernet connection.</td>
<td>Measurement range: detects voltage from 50 to 250 VAC.</td>
</tr>
<tr>
<td>Eliminate the need to place ethernet-enabled devices near power outlets, giving more freedom of placement.</td>
<td>Measurement indication: Alarm or Normal.</td>
</tr>
<tr>
<td>Supply Power and Data up to 300 feet using standard Ethernet cabling.</td>
<td>Sensor type: open/closed contact switch.</td>
</tr>
<tr>
<td>Outputs Power on an attached DC power cable, and Data on an attached Ethernet cable.</td>
<td>Attached 3-foot power cord.</td>
</tr>
<tr>
<td><strong>ENVIROMUX-POE</strong></td>
<td><strong>ENVIROMUX-ACVD-515M</strong></td>
</tr>
<tr>
<td>Ethernet Pin Usage:</td>
<td>• <strong>ENVIROMUX-ACVD-515</strong></td>
</tr>
<tr>
<td>• Data: 1,2,3,6</td>
<td>Standard US 120V 15A NEMA 5-15 plug (When using with ENVIROMUX-MINI that was purchased before 11/1/2008, use part number ENVIROMUX-ACVD-515)</td>
</tr>
<tr>
<td>• Power: 4,5,7,8</td>
<td>• <strong>ENVIROMUX-ACVD-C14M</strong></td>
</tr>
<tr>
<td>No tools or software necessary for installation.</td>
<td>Universal 250V IEC C14 socket (When using with ENVIROMUX-MINI that was purchased before 11/1/2008, use part number ENVIROMUX-ACVD-C14)</td>
</tr>
<tr>
<td>Overload and short circuit protection.</td>
<td><strong>ENVIROMUX-ACVD-C14</strong></td>
</tr>
<tr>
<td>Standards: 802.3af</td>
<td>Regulatory approvals: CE, RoHS.</td>
</tr>
<tr>
<td>Dimensions WxDxH (in): 3x3.25x1.5</td>
<td><strong>ENVIROMUX-DCVD-24V-M</strong></td>
</tr>
<tr>
<td>Maximum power output: 5VDC @ 2.4A.</td>
<td>Measurement range: detects voltage from 24-36 VDC.</td>
</tr>
<tr>
<td>Regulatory approvals: RoHS, FCC, CE</td>
<td>• Contacts remain closed between 26-36 VDC</td>
</tr>
<tr>
<td><strong>Power Converter</strong></td>
<td>• Contacts open when monitored voltage drops below 24 VDC</td>
</tr>
<tr>
<td><img src="140x658" alt="Image" /></td>
<td><strong>Power Over Ethernet Adapter</strong></td>
</tr>
<tr>
<td>Use the PWR-48V-5V1A power converter to install the ENVIROMUX-MINI in a Telecom environment.</td>
<td>Measurement indication: Alarm or Normal.</td>
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<td>Accepts 36-72VDC (48 VDC nominal).</td>
<td>Sensor type: open/closed contact switch.</td>
</tr>
<tr>
<td>Accepts positive or negative polarity.</td>
<td>Includes 6-foot 2-wire cable to connect to the ENVIROMUX-MINI.</td>
</tr>
<tr>
<td>Outputs +5VDC and can handle 1A load.</td>
<td>Attached 3-foot power cord with tinned leads on 3 wires.</td>
</tr>
<tr>
<td>3-pole detachable screw terminal for connecting 48V input.</td>
<td>For use with ENVIROMUX-MINI purchased on or after 11/1/2007.</td>
</tr>
<tr>
<td>2.1x5.5mm male DC power jack.</td>
<td>Regulatory approvals: RoHS</td>
</tr>
<tr>
<td>Dimensions WxDxH (in): 1.8x2.1x1</td>
<td><strong>DC Voltage Detector</strong></td>
</tr>
<tr>
<td>Regulatory approvals: RoHS</td>
<td><strong>ENVIROMUX-DCVD-24V-M</strong></td>
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<td>Measurement range: detects voltage from 24-36 VDC.</td>
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<tr>
<td><img src="12x14" alt="Image" /></td>
<td>• Contacts remain closed between 26-36 VDC</td>
</tr>
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<td>Measurement indication: Alarm or Normal.</td>
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